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June 14, 2019

VIA ECFS

Marlene H. Dortch, Secretary
Federal Communications Commission
445 Twelfth Street, SW
Washington, DC 20554

Re: *Notice of ex parte presentation – Transforming the 2.5 GHz Band, WT Docket No. 18-120*

Dear Ms. Dortch:

On June 12, 2019, ATN International, Inc. ("ATN"), on behalf of itself and its indirect subsidiary Vitelcom Cellular, Inc. dba Viya ("Viya"), met with Blaise Scinto, John Schauble, Catherine Schroeder, Steve Benzo, Nancy Zaczek, and Nadja SodosWallace of the Wireless Telecommunications Bureau regarding the 2.5 GHz docket.[1] On June 13, 2019, ATN separately met with Umair Javed, Legal Advisor To Commissioner Jessica Rosenworcel; Commissioner Brendan Carr and his Legal Advisor Will Adams; Erin McGrath, Legal Advisor to Commissioner Michael O'Rielly as well as Christopher McGillen, legal intern to Commissioner O'Rielly; and William Davenport, Chief of Staff and Senior Legal Advisor to Commissioner Geoffrey Starks. On June 14, 2019, ATN met with Aaron Goldberger, Legal Advisor to Chairman Ajit Pai. In the meetings, ATN was represented by Douglas J. Minster, Vice President, Government and Regulatory Affairs, and Robert Quinn and Mark Settle of Wilkinson Barker Knauer, LLP. In addition, Mr. Quinn held a telephone conference with Nicholas Degani, Senior Counsel to Chairman Pai on June 14, 2019. In each of the foregoing meetings, ATN (and Mr. Quinn) discussed the material set forth in the attached presentation.

[1] *Transforming the 2.5 GHz Band*, Notice of Proposed Rulemaking, 33 FCC Rcd 4687 (2018) ("*Notice*").

This filing is submitted consistent with the Commission's *ex parte* rules.

Sincerely,

/s/ Robert Quinn
Robert Quinn

Counsel to ATN and Viya

cc: Hon. Brendan Carr
Steve Benzo
Will Adams
William Davenport
Nicholas Degani
Aaron Goldberger
Umair Javed
Erin McGrath
John Schauble
Catherine Schroeder
Blaise Scinto
Nadja Sodos-Wallace
Nancy Zaczek

United States Virgin Islands
Transforming The 2.5 GHz Band

Presentation to the Federal Communications Commission

June 12, 2018

Doug Minster

Vice President, Government and Regulatory Affairs

ATN International, Inc.

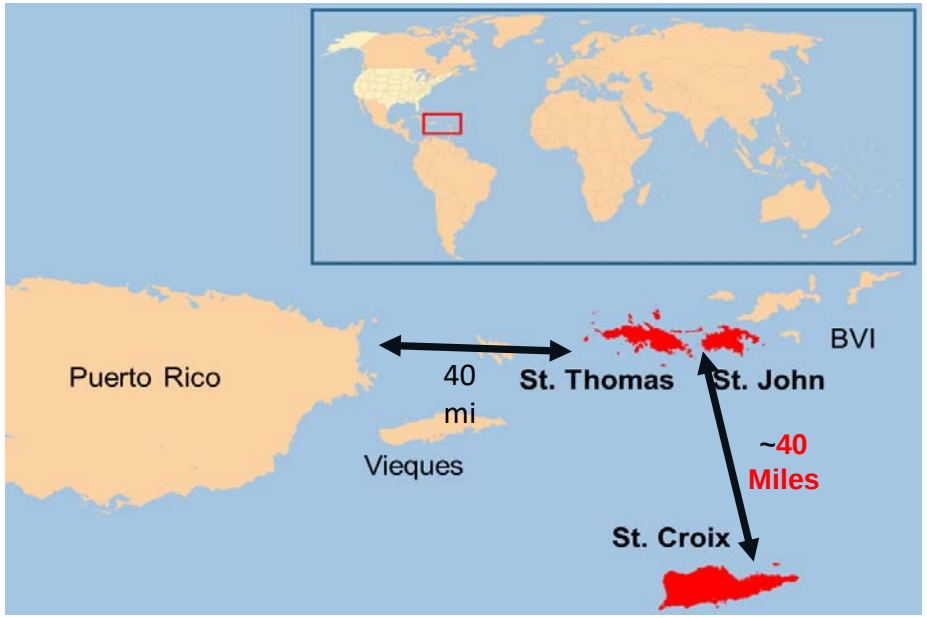
Viya

INTERNET MOBILE CABLE TV PHONE

The vibe that connects us.

United States Virgin Islands

- U.S. territory since 1917
- Virgin Islanders have been U.S. citizens since 1927
- No voting representation in Congress
  - Delegate Stacey Plaskett
- Three primary islands 1,100 miles southeast of Florida and 40 miles east of Puerto Rico



- Combined area of 134 miles^2 (twice the size of Washington, D.C.) and 107K residents:
  - St. Croix: 84 miles^2, 50K population, and 40 miles away from other two islands
  - St. Thomas: 31 miles^2 and 51K population
  - St. John: 20 miles^2 and 5K population

Viya

United States Virgin Islands

- USVI was severely economically challenged prior to the Hurricanes
  - Median household income is 30% lower than U.S.: $37.2K in USVI vs. $57.6K in U.S. (2016)
  - Double the unemployment of the U.S.: 13% in USVI vs. 5% in U.S. (2017)
  - Poverty rate is almost 3x U.S. average: 33% in USVI vs. 13% in U.S. (2016)
- USVI government was financially distressed before the Hurricanes
  - No access to the bond markets; ceased reporting to credit rating agencies
  - Severely underfunded hurricane response fund
  - Per capita government debt was a third higher than Puerto Rico: $19K vs. $12K
- The USVI is a challenging operating environment for communications providers even under the best of circumstances
  - All equipment and most skilled labor must be imported, usually shipped
  - Mountainous terrain, tropical climate, and salt air make deployment and maintenance of equipment expensive and shortens equipment lifespan
  - Power is expensive: 47.5 cents/kWh in USVI vs. 12.47 cents/kWh in U.S. (2019)
  - Regulatory uncertainty and government bureaucracy can be challenging

Viya

Viya

- Viya (formerly Innovative) is a group of affiliated companies that provide fixed wireline voice and broadband telecommunications, mobile wireless service, and cable television services to residents and businesses in the USVI
  - ATN International, a regional U.S. wholesale and retail wireline and wireless telecom provider, acquired Viya in July 2016 from National Rural Utilities Cooperative Finance Corporation, a rural utility lender
  - ATN invests in providing communications services to rural and insular communities that other carriers find too challenging or insufficiently profitable to serve
- Prior to the Hurricanes, Viya operated two legacy mobile networks in the USVI
  - A legacy 3G UMTS network previously operated by Innovative Wireless and a legacy 3G CDMA network operated by ATN subsidiary, Choice Communications

Viya

Viya

- **In 2017, Viya deployed a state-of-the-art Ericsson 4G LTE network**
  - Prior to the damage caused by the hurricanes, Viya had planned to bring the 4G LTE network into commercial service late in 2017
  - After Hurricanes, Viya rebuilt the 4G LTE RAN and expedited deployment
- **Viya is the only "local" 4G LTE provider (Viya's network core is on island)**
  - Viya serves approximately 4000 subscribers but is also home to significant domestic and international roaming traffic (Verizon, T-Mobile, Claro Puerto Rico, Rogers)
  - AT&T is the USVI's major provider with vast majority of market share post-hurricanes

Hurricanes Irma and Maria

- Hurricane Irma struck STT and STJ on September 6
  - Category 5 with 185+ mph winds
  - Much of STT and STJ infrastructure (including wireless and wireline telecom) destroyed
- Hurricane Maria struck STX and further damaged STT and STJ on September 20
  - Category 5 with 175+ mph winds
  - Most of STX infrastructure was destroyed and STT and STJ restoration efforts were undone
- Took over four months for electricity to be restored to 90% of residents; wireline network largely restored within 12 months;
- Schools, hospitals, government buildings, hotels, and marinas still badly damaged throughout USVI; many will have to be replaced

Hurricane Irma

Collapsed telecom tower in East End of St. John after Hurricane Irma.

Hurricane Maria

Hurricane Maria damage in St. Croix.
http://abcnews.go.com/International/us-virgin-islands-ruins-hurricane-maria/story?id=50178300

Hurricane Maria

Utility pole downed by Hurricane Maria in Estate Whim, St. Croix.

Hurricane Maria damage in St. Croix.
http://www.ibtimes.com/st-croix-devastation-hurricane-maria-shown-new-pictures-2594729

Viya

Restoration Efforts

- Viya initially devoted resources to bringing its mobile wireless networks back online as quickly as possible to restore basic connectivity to USVI residents
  - To meet connectivity needs post-storm; Viya quickly restored most cell sites for its three separate wireless networks by mid-Nov. 2017
    - Viya rebuilt and brought 4G LTE network online ahead of schedule
    - Viya never entirely lost wireless connectivity through the storms, and began restoration immediately after. Within 2 months, Viya had restored voice and broadband connectivity to over 80% of population, and to effectively the entire population within 4 months
  - Distributed over 11,000 MiFi devices to wireline residential and business customers and established 25 public WiFi hotspots and calling centers throughout Territory
  - Because of the speed and quality of its wireless network restoration, Viya was selected by FEMA and other first responders as their network of choice for recovery efforts in aftermath of storms

Viya

Viya's 4G LTE Network in the USVI

- Utilizes 2.5 GHz EBS spectrum under the following authorities:

	STX	STJ/STT
A Band	STA *	Licensed
B Band	Leased	STA*
C Band	STA	STA
D Band	STA	STA
G Band	STA*	Leased

- STAs are used as extension of operations in 4G LTE network because of 35 mile limit and license freeze
- 4G LTE network also utilizes Viya's 850 and 1900 spectrum for building penetration and dense foliage coverage
- There are no 2.5 GHz "white spaces" in the USVI as all 2.5 spectrum is in use because of USVI-specific terrain and coverage issues

* Out of abundance of caution, Viya has sought and obtained STAs for A, B, & G Bands for its operations when, in fact, operations in those bands are an extension of the corresponding existing licenses. Because of the proximity of the USVI and the 35 mile limit, the FCC cannot in this proceeding issue licenses to replace the STAs in those bands

Viya

Viya's 4G LTE Network on USVI

- Utilizes All Available 2.5 GHz spectrum either through direct license, lease from Shekinah or STA issued by the FCC
  - There are no 2.5 GHz "white spaces" in the USVI as all 2.5 spectrum is in use because of USVI-specific terrain and coverage issues

- FDD with 3:1 reuse
  - By virtue of having access to all of the EBS spectrum, Viya can serve far field areas with excellent throughput speeds in areas where sites cannot be deployed
  - This frequency spectrum allocation also allows Viya to serve expanded service areas from mountain top sites that would otherwise not be feasible to cover, due to rough terrain and the cost of building and maintaining the number of remote sites required
  - Most efficient use of spectrum in 2.5 GHz on USVI is a single carrier deployment
    - Cannot have both FDD and TDD carriers because of interference
    - Insufficient spectrum for 2 FDD deployments

- Can migrate to 5G infrastructure in combination with Viya's licensed 28 GHz spectrum

Viya

If Viya Were to Lose Access to 2.5 GHz Spectrum from STAs

- Significant spectrum loss if STAs must be relinquished
- Would require Viya to move to 1:1 reuse at lower power levels to manage interference
- Lower power levels would require denser infrastructure: higher costs/siting issues
- Potential loss of coverage area as well
- Drastic change in cost structure would impact long-term viability of building/maintaining network

Policy Implications

- Purpose of Transforming 2.5 GHz proceeding is to promote more mobile broadband infrastructure, particularly in rural and remote areas
- Viya has efficiently used STA authority combined with licensed and leased EBS spectrum to accomplish in the USVI exactly what FCC is hoping to accomplish more broadly in this proceeding
- Losing or degrading existing mobile broadband networks would be contrary to the FCC's purpose in this proceeding and in several other proceedings
- The USVI terrain and rural nature dictate the most efficient use of EBS is a mobile broadband deployment by a single carrier and Viya has already built that network
- Legal precedent exists to extend permanent authority where STA was used to build mobile broadband infrastructure
- Once commercial restriction is lifted, Viya could be granted permanent authority given the unique circumstances present in USVI